

Notice of Allowability

Application No.

10/782,717

Examiner

Alexander Sofocleous

Applicant(s)

CHOI, JOO S.

Art Unit

2824

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment filed March 15, 2005 and April 10, 2006.
2. ☐ The allowed claim(s) is/are 1-17 and 56-68.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 04112006.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Tuan T. Nguyen 4/12/06

TUAN T. NGUYEN
PRIMARY EXAMINER

DETAILED ACTION

1. This action is responsive to the following communication: the Amendment filed March 15, 2006 and April 10, 2006.
2. Claims 1-17 and 56-58 are pending in the case. Claims 18-55 are cancelled. Claims 1, 6, 10, and 11 are currently amended. Claims 56-68 are added. Claims 1, 6, 10, 11, 56, 60, and 63 are independent claims.

Specification

3. The proposed specification corrections received on March 15, 2006 are approved by Examiner.

Response to Arguments

4. Applicant's arguments filed March 15, 2006 with respect to claims 1, 6, 7, and 11 (Cypher '680) have been fully considered and are persuasive (see App's Response page 10, lines 14-17). The rejection of claims 1, 6, 7, and 11 (Cypher '680) has been withdrawn.
5. Applicant's arguments filed March 15, 2006 with respect to claims 1, 6, 7, 8, and 11 (Cypher '992) have been fully considered and are persuasive (see App's Response page 10, lines 24-27). The rejection of claims 1, 6, 7, 8, and 11 (Cypher '680) has been withdrawn.
6. Applicant's arguments filed March 15, 2006 with respect to claims 1-7, 9, and 11-17 (Choi et al. '999) have been fully considered and are persuasive (see App's

Response page 11, lines 10-14; see discussion infra Conclusion). The rejection of claims 1- 7, 9, and 11-17 (Cypher '999) has been withdrawn.

7. Applicant's arguments filed March 15, 2006 with respect to double-patenting claims 1-7, 9, and 11-15 (Choi et al. '999) have been fully considered and are persuasive (see App's Response page 11, lines 24). The double-patenting rejection of claims 1- 7, 9, and 11-15 (Cypher '999) has been withdrawn.

Allowable Subject Matter

8. **Claims 1-17, and 56-68 are allowed.**

9. The following is an examiner's statement of reasons for allowance:

With respect to independent claim 1, 6, and 11, there is no teaching or suggestion in prior art to data lines configured to serially transfer at least one bit of data with at least one bit of auxiliary information.

With respect to independent claim 10, 56, and 60, there is no teaching or suggestion in prior art to the inversion controller including a storage unit for storing inverting codes of the data.

With respect to independent claim 56, there is no teaching or suggestion in prior art to a storage unit for the inversion controller included with the auxiliary circuit where the transceiver unit connects to the storage unit of the inversion controller for transferring the inverting codes between the inverting parity controller and the data lines.

With respect to independent claim 63, there is no teaching or suggestion in prior art to an input auxiliary circuit receiving input auxiliary information of the input data and an output auxiliary circuit generating output auxiliary information of the output data.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Sawamura et al. (U.S. Patent 6,853,595).

Sawamura et al. show a memory device that transfers data using a first set of bitlines and transferring auxiliary information using a second set of bit lines.


For clarity purposes, it is noted that the Applicant indicated that, "auxiliary information is transferred by strobe lines 184 and **194** in Fig. 1" (see App's Response page 11, line 12). Examiner assumes that it was Applicant's intent to indicate the strobe lines 184 and **182** (which is disclosed in Choi et al. '999 as being a strobe/auxiliary line; and corresponds to Figure 2 [WDQS]).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander Sofocleous whose telephone number is 571-272-0635. The examiner can normally be reached on M-F 7:00am - 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Elms can be reached on 571-272-1869. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AGS


4/12/06

TUAN T. NGUYEN
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